

Claims

1. A method for working paper, board, or similar, in which method scoring, punching, perforation, opening, cutting, or a similar operation is carried out on the material referred to in the method, in which operation electromagnetic forces are used, characterized in that the aforesaid operation is carried out by creating, with the aid of an electric motor effect, at least one rapid, back and forwards movement in the tool and/or its counter-piece.
2. A method according to Claim 1, characterized in that the scoring or similar operation is carried out by applying the effect of the mutual movement between an electromagnet (3) and a counter-piece (2).
3. A method according to Claim 1, characterized in that the force created by an electromagnet and carrying out the above operation, is transmitted to the object of the work, by means of joints and/or lever arms.
4. A method according to Claim 1, characterized in that an electromagnet is used to create a linear motion.
5. A method according to Claim 1, characterized in that the work stage is carried out as an operation twice or more in rapid sequence.
6. A method according to Claim 1, characterized in that in the time between the work stages, energy is charged into batteries or capacitors for use in the next stages.
7. A device for working, such as scoring, punching, perforating, creating openings, cutting, or similar, paper, board or similar, including of a component (3) operating on an electromagnetic principle, characterized in that it includes a means (34) for performing the desired operation, a counter-piece (2, 21, 22) to the means (34), and a device for conducting electricity to the component (3) to bring it and the counter-piece (2) towards each other with a rapid, striking movement, to perform the aforesaid operation.

WO 00/54966

9

PCT/FI00/01245

8. A device according to Claim 6, characterized in that the electromagnet (3) is permanently attached to a frame and counter-piece (2) moves towards and away from the magnet, if desired running on guides.

5 9. A device according to Claim 7 or 8, characterized in that it includes a blade (34), which can be changed to suit different purposes.

10 10. A device according to one of the previous Claims 7 – 9, characterized in that it includes a means, such as a battery and/or capacitor, for storing energy, to be used in the next work stage.

11. A device according to one of the previous Claims 7 – 10, characterized in that the device is assembled from two or more components, set either in sequence or parallel to each other, containing an electromagnet (3).

15